



Old to Gold

Customer-Centric Content Models –
A Case Study

JUNE 2015



The Business Problem

Our client, a leading global telecommunications equipment manufacturer, realized that over time their product documentation had become so unwieldy that it was creating problems for customers and causing unnecessary cost in their support business. The volume and structure of the materials made it increasingly difficult to find information, causing an additional barrier for new customers, missing their standard for effective after-sale support.

Our client enlisted Innovatia to plan and implement a significant reduction and restructuring of their materials; their technical content. Innovatia needed to create a new documentation solution that worked **from the customer perspective** - keeping this guiding principle top-of-mind. This paper discusses how Innovatia's approach significantly improved the customer experience and reduced costs by providing our client with a solution to meet the needs of their customers.

It's a Common Business Problem

Customers use product documentation to understand how to use this product they've purchased. They perform tasks during installation and use, and often require information to support and troubleshoot situations. Partners and after-sales support teams use product documentation to setup, maintain, and repair the product. The ease of use and maintenance of a product has a strong influence on future purchase decisions. Product documentation can be a corporate asset or liability.

As products evolve, companies update their product content and publish new materials with each release. As content gets added, the volume of content typically grows creating a new problem.

Our experience in transforming this large body of content from a liability to an asset; from "old to gold", follows.

Client Challenges

Our client faced the following challenges with its documentation:

Too much content to review and test thoroughly	The volume of content was huge for this area, over 8000 pages in a single product release.
Content duplication	Authors worked in silos writing similar content multiple times in multiple documents across multiple products.
User experience	The volume and structure of the content made it very difficult for users to find relevant content on the website.
Legacy content in various formats and tools	Over many releases, the company attempted to fix the problem through tools. The unfortunate result was that content was created in multiple formats (e.g. MS Word and Framemaker XML) and published in multiple outputs formats (e.g. PDF and HTML). Additionally, over the course of many product releases, the source files were distributed among multiple shared drives and Content Management Systems making it difficult to locate and manage.

Our Solution

We recommended that we start with the user experience and create content from their perspective. That included creating user personas and content models, and restructuring the content based on the key tasks users want to

perform. This approach required a deeper and clearer understanding of the audience and their needs prior to designing the supporting personas and content models. Additionally, we recommended that content be reduced and reused wherever possible to minimize the amount of content to be created and managed – improving the user experience and reducing the cost to create and manage these materials.

We used the following approach to meet the client’s content-reduction goals:

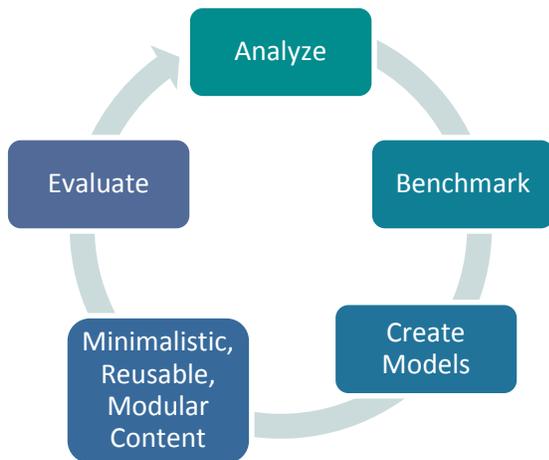


Figure 1 - Approach

Our Approach

ANALYZE THE AUDIENCE

Targeting end users with content that resonates with their needs is essential. It was important to understand:

- Who is the audience?
- What is the typical knowledge level of the product?
- What key tasks do they perform using the product?
- How would they like to access the information?
- How do they search for it?
- How do they find it?

We utilized the multiple sources of customer information, including call data from customer support teams, customer and channel feedback, social media feedback from blogs and forums, and customer surveys to ensure we had a comprehensive view of the target solution.

Our client also had a very strong support team that interacted directly and frequently with their customers. They also had skilled technical partners that deployed their solutions and products for their clients. The Innovatia documentation team’s dialogue with the support teams, partners, and marketing teams provided valuable insight into user requirements and concerns, which assisted us to better understand the audience and create content that works for them. As an example, we re-designed the installation guides to better reflect the users’ typical level of technical knowledge and included more step-by-step checklists and tasks, with fewer details.

CREATE PERSONAS

Personas are fictitious users that represent the needs of specific kinds of users and represent their wants and needs. They can be leveraged with product development and documentation teams to help focus the discussion on the user requirements and tasks versus specific features. Personas help guide decisions about the content, language, structure, and format of the product content.

Using the information we gathered during the audience analysis phase, we identified that the unique user groups and their specific content needs. Using a standard template, we created an archetype (persona) of each type of user.

For one particular product, there were seven unique personas.



Figure 2 – Sample User Persona

BENCHMARK

Benchmarking the existing content allowed us to understand the underlying challenges with the current solution. Having this baseline before the project was critical in being able to assess the impact of the project upon completion.

In benchmarking the existing content we:

Analyzed Competitor Documents

As the customer cares about their total experience, understanding the competitions' solution (both product and documentation) was an important step. The following aspects were compared:

- Scope of the document set for a product
- Document formats
- Content addressed, and the depth of information provided
- What is the competitor doing better than our client?
- What is our client doing better than the competitor?

In one instance one of our client's guides was 400 pages where their competitor's comparable guide was 12 pages, offering two very different user experiences.

Analyze Defects

Defects not only help us benchmark the quality of documentation; they also provide useful insights into how a customer uses a product, the kinds of information they look for, and concerns

they have. Finding a correlation between defects identified for the documents and the product can help us identify whether we are addressing the customer's needs. It can also help us prioritize our transformation efforts.

At a glance, we saw that the configuration and administration guide had the highest number of reported defects. Upon review, we observed that the document was very descriptive with repetitive information throughout. The end user information was available, but was buried, difficult to find. The users needed accessible, task-based information.

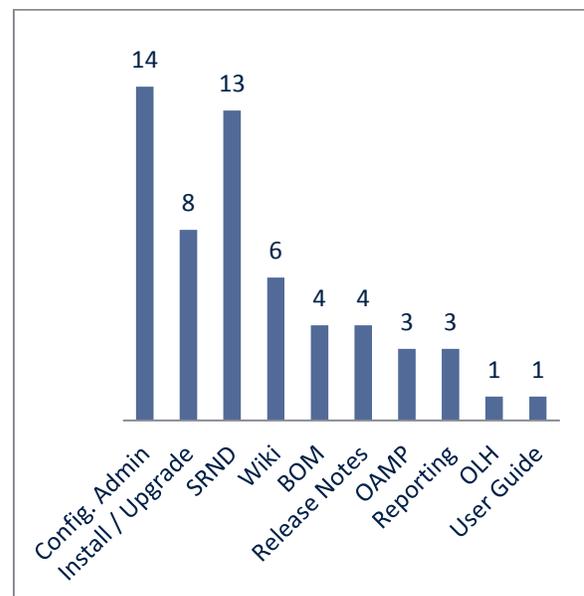


Figure 3 – Number of defect in analyzed documents

Web Analytics

Our client's web analytics tool also captured and revealed valuable information. We looked at the number of hits on a particular document, the time customers spent on a page, and their geographical location. This provided insight into what information was useful to what customers, and how it was used. Content that was not accessed became a candidate for content reduction.

For example, the web analytics report for the product documentation indicated that a certain document was only accessed four times

throughout the year. It's possible that content issues resulted in low hits; however, on further investigation we observed that customers were using the online help for the product, rather than the online user guide. The content was being accessed, but through a different means.

Content Analysis

When analyzing the content, we considered the following:

- Does the content respect the intended audience?**
 If administrators access the document, are we giving too much information, and questioning their ability or intelligence? On the other hand, if the document is for new hires in training, are we providing too little information, making it difficult to use the product?
- Is the content usable and efficient?**
 Customers do not read manuals end-to-end, so it's important we structure the content in a way they can find exactly what they want in as few clicks as possible. We looked at the most common tasks associated with the product and structured the content to address these.
- Is the content accurate?**
 Again, we looked into the defects to benchmark content accuracy.
- Have we provided similar or identical information in multiple documents, and can the content be reused in another book with or without changes?**

Often the products we document are inter-related. Developers may even reuse code at the base level. So, it's quite possible that with few or no changes we can reuse the documentation.

We used Innovatia's Content Miner content analytics tool, to look across multiple documents and identify content duplication and potential reuse. The following figure shows an example of topic-reuse analysis:

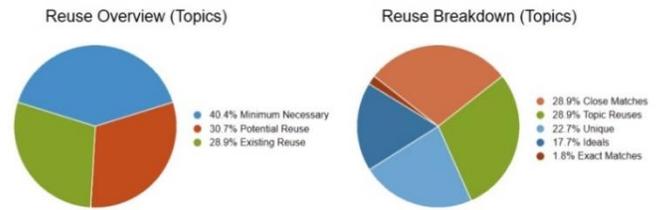


Figure 4 – Reuse with Content Miner



Figure 5 - Potential Content Matches with Content Miner

Task Analysis

Identifying the high-level tasks that customers perform with the product helps to consolidate information and identify obsolete legacy documents that may no longer be required. Consolidating information makes it easier for the customer to find what they're looking for and get to the task they are trying to perform.

We looked at the following high-level tasks for a product:

- Identify new features or tasks for this release
- Identify if this release is compatible with other products
- Understand design requirements
- Understand installation or upgrade process
- Configure the product
- Maintain and operate the product or solution
- Troubleshoot

CREATE CONTENT MODELS

Content models help maintain consistency in the structure or organization of the content. In addition to defining the structure of a document, they also define the content types (e.g. procedures, concepts, references) and content topics (mandatory or required) that guide writers in creating reusable content. We created a content model for each high-level job function identified during the task analysis.

The content models also reflect user requirements based on the personas. As an example, the content model for the installation and upgrade guide should be predominantly task oriented.

Develop Minimalistic, Persona-Based Content

At this stage, we typically identify what legacy content is required and what is not. In this case we leveraged approximately 55% of the legacy content. Because we were dealing with a large document set with interdependencies between documents for different products, we used a phased approach that spanned several releases.

A phased approach ensured we addressed the most relevant user needs early in the transformation process. For example, restructuring the legacy Installation and Upgrade Guides, the most used guides, into one concise, structured guide tackled a significant area of dissatisfaction.

The steps included:

- Mapping existing content to the content models (one model at a time) by identifying topics that were required for each content model.
- Content not required by the content model was moved to a “Need Further Analysis” state.

Content Element	Element Type
Installing the product	Chapter
Title	Title
Chapter TOC	Generated List
Overview	Concept
Installation Scenarios (optional, repeat as needed)	Topic
Scenario title	Title
Scenario overview	Paraclass
Installation Task Flow	TaskFlow
Installation Task	Task
Installation Task Flow	TaskFlow
Installation Task	Task
Troubleshooting	Reference
Title	Title

Figure 4: Sample Install and Upgrade Content Model

- Content in the “Need Further Analysis” state was then analyzed for relevance and either moved to a relevant book or removed.
- Based on the content reuse reports from Content Miner, we identified content duplication and established guidelines for content producers and consumers.
- Existing content was tested for accuracy and rewritten where it was found to be irrelevant, inaccurate, or inadequate.
- Content was rewritten using the principles of minimalism.
- Content that was found to be too basic for the persona or not accessed by the customer was removed.
- Content that was identified as produced by another product team was reused to avoid duplication of effort.

Results

Document Group	Overall Reduction (avg.)	# of Documents Reduced
Group 1	75.61%	0
Group 2	52.55%	6
Group 3	25.00%	2

Figure 6: Content and Document Reduction Results

- Standard content models.
- Lean, task-based content structured in a predictable format.
- Content reduced by 52% overall, including the removal of eight guides.
- Content created in DITA XML to allow for reuse across documents and products and to enable the creation of solution-level guides.
- Content based on user personas, addressing the needs of the users and presenting it in a manner that was easy to understand and access.

Benefits

1. Standard content models
 - a. Content built on consistent, quality-driven templates
 - b. More consistent, predictable user experience
 - c. Authoring effort reduced in future releases
2. Content reduction
 - a. Reduced translation and localization costs
 - b. Reduced information storage costs
 - c. Reduced time to find documents and content
3. Content reuse

- a. Improved content quality through reuse of approved content
 - b. Reduced content development effort (enabling writers to spend more time testing, gathering user feedback, and transforming content)
 - c. Minimized redundancies in the Content Management System
4. User-driven content
 - a. Reduced unnecessary content by identifying what is most important to the user
 - b. Increased design collaboration between engineering/development teams and authoring teams

Testimonial

"I definitely like the new format of the documentation. It is really simple and clean. I think customers are familiar enough with . . . products now to not need a detailed description of every single step . . . it doesn't make sense to repeat all of that in the documentation. Highly appreciated!"

Innovatia is a Knowledge Management company who is exceptional at what they do: Transforming Knowledge into Performance. Founded in 1999 and with offices across North America and globally, Innovatia's over 600 professionals deliver top quality solutions to their clients. Innovatia delivers knowledge management services in the areas of Learning Solutions, Documentation, Content Architecture, Technical Support, and Performance Support software. These solutions span the entire solution set from custom design and development through to delivery and support.

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